

### **In the Claims:**

The claims are as follows:

1. (Currently Amended) A method comprising:

providing a performance system;

measuring an initial measurement of a first parameter of a trainable subject;

providing a control system for controlling a second parameter, wherein the second parameter is a parameter of the performance system;

~~setting an initial point of efficiency of the trainable subject with respect to the initial measurement of the first parameter;~~

determining a range of tolerance, using the control system, surrounding the initial measurement of the first parameter ~~point of efficiency~~;

starting a timer to measure an elapsed time of a given activity;

training the trainable subject within the range of tolerance of the initial measurement ~~point of efficiency~~;

determining, using the control system, for the given activity, a ~~new~~ point of efficiency of the trainable subject by measuring the first parameter of the trainable subject, the point of efficiency being the maximum value of the second parameter whereby a state of accommodation is maintained with respect to the first parameter, wherein the ~~new~~ point of efficiency is determined by repeatedly increasing stress on the trainable subject by controlling the second parameter and then measuring a current measurement of the first parameter of the trainable subject, the current measurement measured after the initial measurement and before the timer is stopped, until just prior to the trainable subject no longer being able to accommodate additional stress and entering a state of inefficiency or exhaustion causing the first parameter to vary,

wherein a rate of the variance of the first parameter at least one of increases and or decreases with respect to the second parameter;

~~wherein the type of stress increased by the control system includes physical activity, environmental hostility, emotional stress, and mathematical calculations, the type of stress actually increased during the training of the trainable subject by the control system corresponds to the trainable subject that is responsive to that stress;~~

stopping the timer, using the control system, when the current measurement of the first parameter is outside of the range of tolerance;

recording a length of time in which the trainable subject remained in [a] the state of accommodation, ~~wherein the trainable subject remains in a state of accommodation until the~~ current measurement of the first parameter is outside the range of tolerance; and

repeating the method of training the trainable subject using the performance system so the maximum value of the second parameter at least one of increases and decreases each repetition of the method such that the point of efficiency is increased to further new points of efficiency.

~~repeating the method, including:~~

~~-determining a new range of tolerance, using the control system, surrounding the new point of efficiency;~~

~~training the trainable subject within the new range of tolerance of the new point of efficiency;~~

~~wherein the new point of efficiency is recalculated and changes each repetition of the method.~~

2-3. (Cancelled).

4. (Previously Presented) The method of claim 1, wherein the first parameter is one of a physical parameter, emotional parameter, and mental parameter of the trainable subject.

5. (Currently Amended) The method of claim 4, wherein the ~~first~~ physical parameter is selected from the group consisting of running turnover rate, stride length, stride strike force, muscle contraction speed, muscle contraction profile, muscle contraction strength, weight lifted, electromagnetic activity profile, chemical activity profile, body temperature, and blood pressure.

6. (Currently Amended) The method of claim 4, wherein the ~~first~~ physical parameter is selected from the group consisting of heart rate, heart beat strength, respiration rate, VO<sub>2</sub>, perspiration rate, metabolic rate, blood flow, breathing rate, heat given off, and breath length.

7. (Previously Presented) The method of claim 4, wherein the first parameter is observed by a signal selected from the group of verbal utterance, physical motion.

8. (Previously presented) The method of claim 1, wherein the trainable subject is selected from the group consisting of an animal, a human, a group of humans, a group of animals, a cellular automata, a group of cellular automata, microbes, and plants.

9-16. (Withdrawn)

17. -20. (Cancelled)

21-33. (Withdrawn)